

SO2: $(24 \text{ hr/day})(364 \text{ hp})(0.18 \text{ g/hp-hr})(\text{lb}/454 \text{ g}) = \mathbf{3.46 \text{ lb/day}}$

PLANT CUMULATIVE INCREASE

	current		proposed	new total
	(ton/yr)	(lb/day)	(ton/yr)	(ton/yr)
POC:	0	0.02	0.004	0.004
NO_x:	0	0.30	0.055	0.055
SO₂:	0	0.02	0.004	0.004
CO:	0	0.26	0.047	0.047
NPOC:	0	0	0	0
PM₁₀:	0	0.013	0.002	0.002

TOXIC RISK SCREENING ANALYSIS

The cancer risk is calculated based on the emission rate of diesel exhaust particulate matter. Diesel exhaust particulate matter is used as a surrogate for all toxic contaminants found in diesel exhaust. Because the proposed emissions (4.75 lb/yr for 50 hours) exceed the chronic trigger level for diesel exhaust particulate matter in Table 2-5-1 (0.58 lb/yr), a risk screening was performed.

BACT

BACT is triggered for NO_x and CO as maximum daily emissions exceed 10 lb/day, as calculated on page 1 (Daily Emissions). S-1 satisfies the current BACT 2 standards of 6.9 g/hp-hr for NO_x and 2.75 g/hp-hr for CO. The more restrictive BACT1 standards are not applicable to this engine because it will be limited to operation as a standby engine.

Since CARB certification data was used to establish the NO_x and CO emission factors, the BACT 2 emission limits have not been incorporated into the permit conditions and are assumed to be complied with through the design standards demonstrated by the CARB certification testing.

OFFSETS

Offsets are not required because permitted POC and NO_x emissions are each expected to be less than 10 ton/yr.

PM₁₀ offset requirements are not triggered because this facility is not a Major Facility.

STATEMENT OF COMPLIANCE

S-1 will be operated as an emergency standby engine and therefore is not subject to the emission rate limits in Regulation 9, Rule 8 ("NO_x and CO from Stationary Internal Combustion Engines"). S-1 is subject to the monitoring and record keeping requirements of Regulation 9-8-530 and the SO₂ limitations of 9-1-301 (ground-level concentration) and 9-1-304 (0.5% by weight in fuel). Regulation 9-8-530 requirements are incorporated into the proposed permit conditions. Compliance with Regulation 9-1 is very likely since diesel fuel with a 0.05% by weight sulfur is mandated for use in California. Like all combustion sources, S-1 is subject to Regulation 6 ("Particulate and Visible Emissions"). This engine is not expected to produce visible emissions or fallout in violation of this regulation and will be assumed to be in compliance with Regulation 6 pending a regular inspection.

This application is considered to be ministerial under the District's Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors in accordance with Permit Handbook Chapter 2.3.

PSD, NSPS and NESHAPS are not triggered.

PUBLIC NOTIFICATION

Source S-1 is located within 1,000 feet of the nearest school (Gloria Dei Lutheran and Ralston Middle School) and hence this project is subject to the public notification requirements contained in Regulation 2-1-412. These requirements apply to the parents of the students at Gloria Dei Lutheran, the parents of the students at any other school within 1/4 mile of the source (Cipriani Elementary School and Serendipity School), and all other addresses within 1,000 feet of the source. Therefore, the public notice (see Attachment A) was mailed to the parents of the students of all the schools and also to each address within 1000 feet of the source.

PERMIT CONDITIONS

APPLICATION 14826; Mid Peninsula Water District; PLANT 17871
CONDITIONS FOR S-1 (Condition number 22850)

1. Operating for reliability-related activities is limited to 50 hours per year per engine.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

2. The owner or operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating hours while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(G)(1)]

4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
 - a. Hours of operation for reliability-related activities (maintenance and testing).
 - b. Hours of operation for emission testing to show compliance with emission limits.
 - c. Hours of operation (emergency).
 - d. For each emergency, the nature of the emergency condition.
 - e. Fuel usage for each engine(s).

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(I), (or Regulation 2-6-501)]

5. At School and Near-School Operation:

If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:
The owner or operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:

 - a. Whenever there is a school sponsored activity (if the engine is located on school grounds).
 - b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session "School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(1)] or (e)(2)(B)(2)]

RECOMMENDATION

Waive Authority to Construct and issue a Permit to Operate to Mid Peninsula Water District for:

S-1 Emergency Standby Generator: Diesel Engine, Cummins, Model QSL9-G2, 364 HP

By: _____
Sanjeev Kamboj
Air Quality Engineer II

Date: **9/19/06**_____